

AMENDMENTS TO THE CLAIMS

Claims 1-21 (canceled)

Claim 22 (currently amended): An arrangement for spectroscopic determination of components and concentrations of any pumpable material, comprising:

a sample vessel;

a pump; and

a measurement cell with a spectroscopic measurement head which carries out a nondestructive spectroscopic measurement of a sample of the pumpable material by light absorption and/or light transmission;

wherein said measurement cell is connected to the pump, which can vary the flow rate, and to the sample vessel by a pipe; and

wherein said spectroscopic measurement head and the regulatable pump have electrical connections to a controlling and evaluating unit;

wherein the through-flow volume of an outlet valve provided in the outlet line of the vessel is regulated by the controlling and evaluating unit; and

wherein the controlling and evaluating unit determines components and concentrations of substances contained in the sample, and regulates the through-flow of the outlet valve based on the determined components and concentrations of the substances contained in the sample.

Claim 23 (previously presented): The arrangement according to Claim 22;

wherein the measurement cell is constructed in such a way that the sample flows between two oppositely located windows which are integrated in the measurement cell perpendicular to the direction of flow.

Claim 24 (previously presented): The arrangement according to Claim 22;
wherein a multi-port valve is arranged in the pipe to produce connections to a water vessel
and/or cleaning liquid vessel.

Claim 25 (previously presented): The arrangement according to Claim 22;
wherein the multi-port valve arranged in the pipe can produce connections to one or more
vessels with test liquids for self-calibration.

Claim 26 (previously presented): The arrangement according to Claim 22;
wherein the multi-port valve has an actuating drive which is connected to the controlling and
evaluating unit.

Claim 27 (previously presented): The arrangement according to Claim 22;
wherein a device is provided for drying the measurement cell and is connected to the controlling
and evaluating unit.

Claim 28 (previously presented): The arrangement according to Claim 22;
wherein a device is provided for regulating the temperature of the sample and is connected to
the controlling and evaluating unit.

Claim 29 (previously presented): The arrangement according to at Claim 22;
wherein the arrangement is connected to the outlet line of a vessel arranged on a vehicle by two
three-way directional valves.

Claim 30 (canceled)

Claim 31 (previously presented): A method for the spectroscopic determination of the components and concentrations of any pumpable material, comprising the steps of:

- pumping a sample contained in a sample vessel by a pump through a measurement cell with a spectroscopic measurement head;
- allowing the measurement head to carry out a nondestructive spectroscopic measurement of the sample flowing through the measurement cell by light absorption and/or light transmission using the principle of transflection; and
- conveying the measurement results for further processing to a controlling and evaluating unit which determines components and concentrations of substances contained in the sample based on stored specific calibrations.

Claim 32 (previously presented): The method according to Claim 31;

- wherein the pump is regulated to ensure the flow rate of the sample required for the spectroscopic measurement.

Claim 33 (previously presented): The method according to Claim 31;

- wherein an existing water vessel is connected to the measurement cell by a multi-port valve in order to remove residues of the measured sample from the measurement cell and prepare the measurement cell for the next sample.

Claim 34 (previously presented): The method according to Claim 31;

- wherein an existing water vessel and a vessel with cleaning liquid are connected successively to the measurement cell by a multi-port valve in order to clean out residues of the measured sample from the measurement cell, rinse the measurement cell, and prepare the measurement cell for the next sample.

Claim 35 (previously presented): The method according to Claim 31;

wherein residual moisture is removed from the measurement cell by a device for drying after the measurement cell has been cleaned.

Claim 36 (previously presented): The method according to Claim 31;

wherein one or more vessels with test liquids for self-calibration of the arrangement is connected to the measurement cell by a multi-port valve.

Claim 37 (previously presented): The method according to Claim 31;

wherein the sample is temperature-controlled by a device to prevent the influence of temperature on the measurement results.

Claim 38 (previously presented): The method according to Claim 31;

wherein the measurement head carries out a spectroscopic measurement of the measurement cell without a sample in order to determine the degree of contamination of the measurement cell.

Claim 39 (previously presented): The method according to Claim 31;

wherein the cleaning and/or drying of the measurement cell and a possible temperature regulation of the sample are/is controlled by the controlling and evaluating unit.

Claim 40 (previously presented): A method comprising the steps of:

pumping a sample to be measured by a pump through a measurement cell which forms a unit with a spectroscopic measurement head;
allowing the measurement head to carry out a spectroscopic measurement of the sample flowing through the measurement cell by transmission and/or reflection; and

conveying the measurement results for further processing to a controlling and evaluating unit which determines components and concentrations of substances contained in the sample based on stored specific calibrations;

wherein said sample to be measured is taken from the outlet line of a vessel; and

wherein a control signal is generated by the controlling and evaluating unit based on the determined components and concentrations of substances contained in the sample, and is used to regulate the flow through an outlet valve of the outlet line of the vessel.

Claim 41 (previously presented): The method according to Claim 40;

wherein the sample is conveyed back into the outlet line of the vessel after being measured.

Claim 42 (previously presented): The method according to Claim 40;

wherein previously determined soil values are taken into account by the controlling and evaluating unit in addition to the determined components and concentrations of substances contained in the sample in order to generate a control signal for regulating the flow through an outlet valve while dispensing pumpable organic waste.

Claim 43 (currently amended): The arrangement according to Claim-~~[[30]]~~ 22;

wherein the arrangement is mounted in its entirety on a vehicle for dispensing pumpable organic waste.

Claim 44 (currently amended): The arrangement according to Claim-~~[[30]]~~ 22, further comprising:

means for conveying the sample back into the outlet line downstream of the measurement cell.

Claim 45 (previously presented): The method according to Claim 41;

wherein the vessel is arranged on a vehicle.